

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A control apparatus for a fuel cell including an oxidizing gas supplying unit configured to supply an oxidizing gas to a cathode via an oxidizing gas supply line of the fuel cell, and a hydrogen supplying unit configured to supply hydrogen to an anode via a hydrogen supply line of the fuel cell, the anode having a buildup of impurities over time causing a presence of residual gas, the control apparatus comprising:

a cathode-side gas pressure detecting unit configured to detect a cathode-side gas pressure within at least one of the oxidizing gas supply line and the cathode;

a target hydrogen partial pressure determining unit configured to dynamically calculate a target hydrogen partial pressure regarding a hydrogen pressure among a gas mixture in the ~~anode~~; anode, the dynamic calculation being based on the detected cathode-side gas pressure and a required electricity generation amount;

a hydrogen supply pressure calculating unit configured to calculate a hydrogen supply pressure of hydrogen to be supplied to the fuel cell, ~~based upon cell based on the~~ calculated target hydrogen partial pressure and the detected cathode-side gas pressure ~~detected by the cathode-side gas pressure detecting means; and~~ pressure; and

a hydrogen supply control unit configured to regulate the supply of hydrogen from the hydrogen supplying ~~means-unit~~ to the fuel cell at the calculated hydrogen supply pressure.

2. (Canceled)

3. (Currently Amended) The control apparatus for a fuel cell according to claim 1, further comprising:

a fuel cell temperature detecting unit configured to detect a temperature of the fuel cell; and

a correcting unit configured to correct ~~a~~the calculated target hydrogen partial pressure based ~~upon-on~~ the detected temperature of the fuel cell, cell to yield a corrected target hydrogen partial pressure, wherein

the hydrogen supply pressure calculating unit calculates the hydrogen supply pressure of the hydrogen to be supplied to the fuel cell based ~~upon-on~~ the corrected target hydrogen partial pressure and the detected cathode-side gas pressure ~~detected by the cathode-side gas pressure detecting unit.~~ pressure.

4. (Canceled)

5. (Currently Amended) The control apparatus for a fuel cell according to claim 1, further comprising:

an exhaust unit configured to discharge residual gas remaining within at least one of the anode and the hydrogen supply line;

an exhaust control unit configured to discharge the residual gas using the exhaust unit when the hydrogen supply pressure is not within a tolerance range for gas pressure on the anode side; and

a residual gas partial pressure calculating unit configured to calculate a partial pressure of the residual gas remaining within at least one of the anode and the hydrogen supply line when the residual gas is discharged, wherein

the hydrogen supply pressure calculating unit calculates the hydrogen supply pressure of the hydrogen to be supplied to the fuel cell based ~~upon-on~~ the calculated target hydrogen partial pressure, the detected cathode-side gas pressure and the calculated residual gas partial pressure.

6. (Currently Amended) A control method for a fuel cell comprising an oxidizing gas supplying unit configured to supply an oxidizing gas to a cathode via an oxidizing gas supply line of the fuel cell, and a hydrogen supplying unit configured to supply hydrogen to an anode via a hydrogen supply line of the fuel cell, the anode having a buildup of impurities over time causing a presence of residual gas, the method ~~comprising the steps of:~~ comprising:

detecting a cathode-side gas pressure within at least one of the oxidizing gas supply line and the ~~cathode;~~ cathode with a pressure detecting device;

dynamically calculating a target hydrogen partial pressure regarding a hydrogen pressure among a gas mixture in the ~~anode;~~ anode, the dynamic calculation being based on the detected cathode-side gas pressure and a required electricity generation amount;

calculating a hydrogen supply pressure of hydrogen to be supplied to the fuel cell, ~~based upon~~ cell based on the ~~calculated~~ target hydrogen partial pressure and the detected cathode-side gas pressure; and

controlling a hydrogen supply control device to regulate the supply of hydrogen ~~so as to be supplied~~ from the hydrogen supplying ~~means~~ unit to the fuel cell at the calculated hydrogen supply pressure.

7. (Canceled)

8. (Currently Amended) The control method for a fuel cell according to claim 6, ~~characterized by further comprising the following steps of:~~ comprising:

detecting a temperature of the fuel ~~cell;~~ cell with a temperature detecting device;

correcting the calculated target hydrogen partial pressure based ~~upon~~ on the detected temperature of the fuel ~~cell;~~ cell to yield a corrected target hydrogen partial pressure;
and

calculating the hydrogen supply pressure of the hydrogen to be supplied to the fuel cell based ~~upon-on~~ the corrected target hydrogen partial pressure and the detected cathode-side gas pressure.

9. (Canceled)

10. (Currently Amended) The control method for a fuel cell according to claim 6, ~~characterized by further comprising the following steps of:~~ comprising:

discharging residual gas when the hydrogen supply pressure is not within a tolerance range for gas pressure on the anode side;

calculating a partial pressure of the residual gas remaining within at least one of the anode and the hydrogen supply line when the residual gas is discharged; and

calculating the hydrogen supply pressure of the hydrogen to be supplied to the fuel cell based ~~upon-on~~ the calculated target hydrogen partial pressure, the detected cathode-side gas pressure and the calculated residual gas partial pressure.

11-15.(Canceled)